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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,932	08/05/2003	Ilya Nikolayev		6571

7590 08/16/2005

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EXAMINER
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RIVELL, JOHN A

ART UNIT	PAPER NUMBER
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3753

DATE MAILED: 08/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

8P

<b>Office Action Summary</b>	<b>Application No.</b> 10/634,932	<b>Applicant(s)</b> NIKOLAYEV ET AL.	
	<b>Examiner</b> John Rivell	<b>Art Unit</b> 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08/05/03 (application).
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>08052003</u> . | 6) <input type="checkbox"/> Other: _____  |

The substitute specification filed December 22, 2003 has not been entered because it does not conform to 37 CFR 1.125(b) and (c) because the statement as to a lack of new matter under 37 CFR 1.125(b) is missing. Although this copy has been reviewed for compliance and is otherwise acceptable, this copy of the specification will not be entered until the statement concerning the lack of new matter is supplied.

Claims 1-18 are pending.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 15 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Specifically, the specification lacks discussion or acknowledgement of having the "position of said sealing element of said connector in relation to the length of said core depressor is so as to provide reliable seal between said valve and said connector prior to the opening of said stop valve" as recited in claim 15.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12, line 2 recites the limitation "the core depressor" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 13 recites the limitation "the sealing element" in line 2. There is insufficient antecedent basis for this limitation in the claim.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-14, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen in view of Hosking, further in view of Dudar.

The patent to Allen discloses, in figures 4 and 5, for example, a "rapid access tire valve for a pneumatic tire on a rim of a vehicle with said valve comprising: a hollow stem (40) having a stop-valve chamber (at 41) located at close proximity to the coupling end of said stem (40);... a connector (at 50) configured to be releasably engageable with said valve (stem 40) to provide an uninterrupted path for the conveyance of the

pressurized media between the interior of a tire (22) and the source of pressurized media; a flange embodiment (the "flange" formed above groove 53 having the groove immediately below the flange and a "forward slope" from the flange to the uniform diameter at the upper end of element 40) located at the coupling end of said stem (40) to communicate with locking feature (balls 52, sleeve 54) of said connector; a first cylindrical embodiment (the above mentioned forward slope at the upper side of the "flange") adjoined to the front portion of said flange embodiment through a forward slope on the coupling end of said stem (40) to create a sealing relation with sealing element (at numeral 56) of said connector; a second cylindrical embodiment (groove 53) adjoined to the rear portion of said flange embodiment through a rear slope; a force-operated pressure stop-valve (42) sealingly installed into the valve chamber of said stem (40) for blocking the passage of media through the bore of said stem in normal operating position" as recited in claim 1.

Thus the patent to Allen discloses all the claimed features with the exception of having "a rubber base attached to the mounting end of said stem by means of an overmolding procedure, said base having means of mounting said valve on a rim of a vehicle" and "a protective cap to be pressed onto and over said coupling end so as to protect said stop valve and the surface of said flanged end during normal course of operation".

Firstly, the patent to Hosking discloses, in figures 18 and 19 for example, that it is known in the art to employ a rubber "overmolded" layer 115, molded over a brass insert sleeve 101 which in turn contains the inflation valve 106, for the purpose of protecting the metallic parts from corrosion and to form an insertable element to permit installation be simple insertion (column 6, lines 49-74).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Allen an over molded layer of rubber over the valve stem 40 for the purpose of protecting the metallic parts from corrosion and to form an insertable element to permit installation be simple insertion as recognized by Hosking.

Secondly, the patent to Dudar discloses that it is known in the art to employ "a protective cap" at 16, removably located over the accessible end 14 of a quick connector coupling half attached to a tire for inflation of the tire when not attached to a pressure source, for the purpose of protecting the accessible end of the quick connect coupling from dirt and/or other debris.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Allen a protective cap for the accessible end of valve stem 40 for the purpose of protecting the accessible end of valve stem 40 from dirt and/or debris when the stem is not connected to a pressure source as recognized by Dudar.

Regarding claim 2, in Hosking, "said valve chamber has internal screw thread for said stop-valve (106) installation" permitting removal for repair and/or replacement.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Allen a threaded interior in stem 40 for the purpose of permitting repair and/or replacement as taught by Hosking.

Regarding claims 3-5, the requirement of having "said flange embodiment (be) about 9 mm in diameter" (claim 3), "said first cylindrical embodiment (be) about 7 mm in diameter" claim 4) and "said second cylindrical embodiment (be) about 7 mm in diameter" are all clearly obvious design expedients relating to a desired size, providing no new and/or unexpected results over these specific features disclosed in Allen.

Regarding claim 6, in Allen, "said first cylindrical embodiment (i.e. the upper slope surface above the "flange") is adjacent to said flange embodiment through a forward cone portion having a slope between 0 degrees and 45 degrees" as recited.

Regarding claims 7 and 8, the requirement having "said second cylindrical embodiment is adjacent to said flange embodiment through a rear cone portion having a slope between 45 degrees and 90 degrees" (claim 7) and "said slopes (being) spherical" claim 8" are clearly obvious design expedients relating to a desired shape, providing no new and/or unexpected results over the corresponding specific features disclosed in Allen.

Regarding claim 9, in Dudar, "said slopes and said flange embodiment are configured as an annular groove" 20.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Allen a "groove" type embodiment for cooperation with the associated quick coupling half for the purpose of coupling the two halves together as taught by Dudar.

Regarding claim 10, in Allen, "said forward slope is for the secure releasable engagement of the locking elements (53) of said connector with said valve" as recited.

Regarding claim 11, in Allen, "said rear slope is for the secure releasable engagement of the locking elements (53) of said connector with said valve" as recited.

Regarding claim 12, in Allen, "said pressure stop-valve (42) is force-actuatable by making contact with the core depressor (the opposing valve 60) of said connector."

Regarding claim 13, in Allen, a "sealed joint between said valve and said connector is provided by the sealing element (shown within coupling half 60 in engagement with the upper end of stem 40, above surface 56 in fig. 9) present in said connector" as recited.

Regarding claim 14, in Allen, "a releasable joint between said connector (60) and said valve (stem 40) is provided by deployment of at least one displaceable detent (ball 53 and/or sleeve 54)) of said connector" as recited,

Regarding claim 16, in Allen, "said valve has a means of attaching (at flange 27 and nut 31) it to the communication outlet aperture of the inner tube of a conventional pneumatic tire" as recited,

Regarding claim 17, in Hosking, said rubber base (115) is configured for snap-in installation of said valve into aperture of a wheel rim" as recited, and as noted above.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Allen in view of Hosking, further in view of Dudar as applied to claims 1-14, 16 and 17 above, further in view of Drudge.

The patent to Allen, as modified by Hosking and Dudar, discloses all the claimed features with the exception of having "the position of said sealing element of said connector in relation to the length of said core depressor is so as to provide reliable seal between said valve and said connector prior to the opening of said stop valve"

The patent to Drudge discloses that it is known in the art to employ a seal element at 42, physically located in the female half of a tire inflation quick connect coupling relative to the end 11 of the tire inflation stem for the purpose of sealing the coupling source half to the inflation stem end prior to actuating the tire inflation valve precluding fluid leakage through the coupling.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Allen, as modified by Hosking and Dudar, a specifically located seal element relative to the position of the end of the tire stem for the purpose of sealing the coupling source half to the inflation stem end prior to



actuating the tire inflation valve precluding fluid leakage through the coupling as recognized by Drudge.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Allen in view of Hosking, further in view of Dudar as applied to claims 1-14, 16 and 17 above, further in view of Worth.

The patent to Allen, as modified by Hosking and Dudar, discloses all the claimed features with the exception of having "a threaded end to provide means of mounting said valve through an aperture of a wheel rim by locking nuts".

The patent to Worth discloses that it is known in the art to employ a threaded tire stem 16 half of a quick connect tire inflation coupling, attached to a tire rim 72 by locking nuts 12 and 24 for the purpose of removable mechanically connecting the inflation stem to the rim of the wheel to be inflated.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Allen, as modified by Hosking and Dudar, a threaded inflation stem connected to the tire rim by opposite locking nuts for the purpose of removable mechanically connecting the inflation stem to the rim of the wheel to be inflated as recognized by Worth.

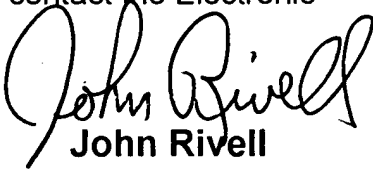
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Rivell whose telephone number is (571) 272-4918. The examiner can normally be reached on Mon.-Thur. from 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on (571) 272-4930. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Art Unit: 3753

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**John Rivell**  
**Primary Examiner**  
**Art Unit 3753**

j.r.